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(54) Title: T1R HETERO-OLIGOMERIC TASTE RECEPTORS, CELL LINES THAT EXPRESS SAID RECEPTORS, AND TASTE COMPOUNDS

(57) Abstract: The invention relates to compounds that specifically bind a T1R1/T1R3 or T1R2/T1R3 receptor or fragments or sub-units thereof. The present invention also relates to the use of hetero-oligomeric and chimeric taste receptors comprising T1R1/T1R3 and T1R2/T1R3 in assays to identify compounds that respectively respond to umami taste stimuli and sweet taste stimuli. Further, the invention relates to the constitutive of cell lines that stably or transiently co-express a combination of T1R1 and T1R3; or T1R2 and T1R3; under constitutive or inducible conditions. The use of these cells lines in cell-based assays to identify umami and sweet taste modulatory compounds is also provided, particularly high throughput screening assays that detect receptor activity by use of fluorometric imaging.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/25459

A. CLASSIFICATION OF SUBJECT MATTER

IPC: C12P 21/06(2006.01)

USPC: 435/69.1

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/69.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Examiner's Automated Search Tool (EAST)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, T	US 2003/0232407 A1 (ZOLLER et al.) 26 June 2002 (26.06.2002) Abstract; [0010, 0073, 0088, 0124, 0283]; claims 45, 116, 178, 181	1-34, 39-55, 59-62
Y	US 6,383, 778 B1 (ZUKER et al.) 7 May 2002 (07.05.2002), col. 1, lines 43-45; col. 2, line 66 - col. 3, line 3; col. 4, lines 53-56; col. 5, lines 59-61; col. 9, lines 19-32; col. 10, lines 38-40; col. 12, lines 43-51; col. 13, lines 12-58; col. 20, lines 25-34; col. 33, lines 14-27; col. 34, lines 30-67)	1-34, 39-55, 59-62

☐ Further documents are listed in the continuation of Box C.

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